

Effect of Ethanol Extract of Kecombrang (*Etlingera elatior*) Leaves to Lens and Erythrocyte Aldose Reductase Activity in White Rats (*Rattus norvegicus*) Wistar strain with Diabetes Mellitus

This research was to prove the ethanol extract of kecombrang (*Etlingera elatior*) leaves could decrease lens and erythrocyte aldose reductase activity. True experimental research with randomized posttest only controls group design was performed. Thirty-five male white rats (*Rattus norvegicus*) Wistar strain were divided into five groups (each comprised seven rats). Four groups which injected by Streptozotocin (STZ) 60 mg/kgBW were K₍₊₎ (fed by Na-CMC 1% solution only), P₁ (fed by 100 mg/kgBW kecombrang leaves extract in Na-CMC 1% solution), P₂ (fed by 150 mg/kgBW kecombrang leaves extract in Na-CMC 1% solution), and P₃ (fed by 200 mg/kgBW kecombrang leaves extract in Na-CMC 1% solution). One group (K₍₋₎) which not injected by Streptozotocin (STZ) was fed by Na-CMC 1% solution only. The mean activity of aldose reductase lens between groups (K₍₊₎, K₍₋₎, P₁, P₂, and P₃) was found that there was no significant mean difference ($p > 0.05$). Group which fed by 100 mg/kgBW, 150 mg/kgBW and 200 mg/kgBW kecombrang leaves extract had lower erythrocyte aldose reductase activity than group which was not fed by kecombrang leaves extract significantly ($p < 0.05$). This research suggest that ethanol extract of kecombrang (*Etlingera elatior*) leaves decrease erythrocyte aldose reductase activity in white rats (*Rattus norvegicus*) Wistar strain with diabetes mellitus but ethanol extract of kecombrang (*Etlingera elatior*) leaves was not proven to affect lens aldose reductase activity in white rats (*Rattus norvegicus*) Wistar strain with diabetes mellitus.

Keywords: *ethanol extract of Etlingera elatior leaves, lens aldose reductase activity, erythrocyte aldose reductase activity*

DAFTAR ISI

Halaman